



California Cooperative  
Snow Surveys  
Bulletin 120-1-08

State of California  
The Resources Agency

Department of  
Water Resources

# Water Conditions in California

Report 1 February 1, 2008



**Arnold Schwarzenegger**  
Governor  
State of California

**Mike Chrisman**  
Secretary for Resources  
The Resources Agency

**Lester A. Snow**  
Director  
Department of Water Resources

**STATE OF CALIFORNIA**  
Arnold Schwarzenegger, Governor

**THE RESOURCES AGENCY**  
Mike Chrisman, Secretary for Resources

**Department of Water Resources**

Lester A. Snow  
Director

Susan Sims Acting Chief Deputy Director	Gerald Johns Deputy Director	David Gutierrez Acting Deputy Director	Ralph Torres Deputy Director
Timothy Haines Deputy Director	Mark Cowin Deputy Director	Reuben Jimenez Deputy Director	David Sandino Chief Counsel

**Division of Flood Management**

George T. Qualley.....Acting Chief, Division of Flood Management  
Gary B. Bardini.....Chief, Hydrology and Flood Operations  
Maury Roos.....State Hydrologist  
Arthur Hinojosa.....Chief, Hydrology Branch

**Prepared by**

Frank Gehrke.....Chief, Snow Surveys  
Dave Rizzardo.....Chief, Forecasting Section  
Stephen Nemeth.....Engineer, W.R.  
John King.....Engineer, W.R.  
Adam Schneider.....Engineer, W.R.  
Andrew Reising.....Engineer, W.R.  
Matt Winston.....Senior Meteorologist, W.R.  
David M. Hart.....Water Resources Engineering Associate

**COOPERATING AGENCIES**

**Public Agencies**

Buena Vista Water Storage District  
East Bay Municipal Utility District  
Eldorado Irrigation District  
Friant Water Users Association  
Kaweah Delta Water Conservation District  
Kern Delta Water District  
Kings River Conservation District  
Lower Tule River Irrigation District  
Merced Irrigation District  
Modesto Irrigation District  
Nevada Irrigation District  
North Kern Water Storage District  
Northern California Power Agency  
Oakdale Irrigation District  
Omochumne-Hartnell Water District  
Oroville-Wyandotte Irrigation District  
Placer County Water Agency  
Sacramento Municipal Utility District  
San Joaquin River Exchange Contractors Water Authority  
South San Joaquin Irrigation District  
Tri-Dam Project  
Truckee River Basin Water Commission  
Tulare Lake Basin Water Storage District  
Turlock Irrigation District  
Yuba County Water Agency  
**Private Organizations**  
J.G. Boswell Company  
Kaweah and St. Johns River Association  
Kings River Water Association  
Tule River Association  
State Water Project Contractors

**Municipalities**

City of Bakersfield Water Department  
City of Los Angeles Department of Water and Power  
City and County of San Francisco Hetch Hetchy Water and Power

**State Agencies**

University of California  
Central Sierra Snow Laboratory  
Scripps Institution of Oceanography  
California Department of Forestry & Fire Protection  
California Department of Water Resources

**Public Utilities**

Pacific Gas and Electric Company  
Southern California Edison Company

**Federal Agencies**

U.S. Department of Agriculture  
Forest Service(14 National Forests)  
Natural Resource Conservation Service  
U.S. Department of Commerce  
National Weather Service  
U.S. Department of Interior  
Bureau of Reclamation  
Geological Survey, Water Resources  
National Park Service(3 National Parks)  
U.S. Department of Army  
Corps of Engineers  
**Other Cooperative Programs**  
Nevada Cooperative Snow Surveys  
Oregon Cooperative Snow Surveys

## Summary of Water Conditions

February 1, 2008

This season started out rather dry but a powerful storm during the first week of January doubled the meager snowpack. Then, in the fourth week, a surprise lingering storm dumped copious amounts of rain in the Central Valley and over the Coast Range as well as moderate amounts in the Sierra, to boost precipitation totals at many stations above average for this point in the season. The late month storms were cold adding snow to low levels and yielding a robust snowpack for this time of year. The water outlook for the year is more positive but still dependent on conditions thru April.

**Forecasts** of April through July runoff are 95 percent of average statewide, with a relatively even north to south distribution. Water year forecasts are slightly lower at 80 percent of average. About 40 percent of the rainy season remains, so the currently good outlook could diminish if the remaining season is dry.

**Snowpack water content** is excellent for this time of year at 130 percent of average compared to 40 percent last year. The pack is about 85 percent of the April 1 average, the normal date of maximum accumulation. Lower zone percentages are larger than higher elevation snow courses, so some melting may occur in March.

**Precipitation** from October through January was about 110 percent of average compared to 55 percent one year ago. January precipitation was 160 percent of average, which offset a very dry November. Seasonal percentages range from 150 in the Colorado River region to 90 in the North Lahontan region.

**Runoff** has been much below average so far at 55 percent, the same as the 55 percent last year. The low runoff is partly due to the residual effect of a dry 2007 and the dryness of the first part of the current season. Another factor is the coldness of January which produced snow instead of rain down to fairly low mountain elevations. Runoff in January was 70 percent of average for the month. Estimated runoff of the eight major rivers of the Sacramento and San Joaquin River regions in January was 1.7 million acre feet.

**Reservoir storage** is about 85 percent of average compared to 110 percent last year. This reflects the drawdown which took place in 2007 and the lack of substantial runoff from mountain basins so far this season.

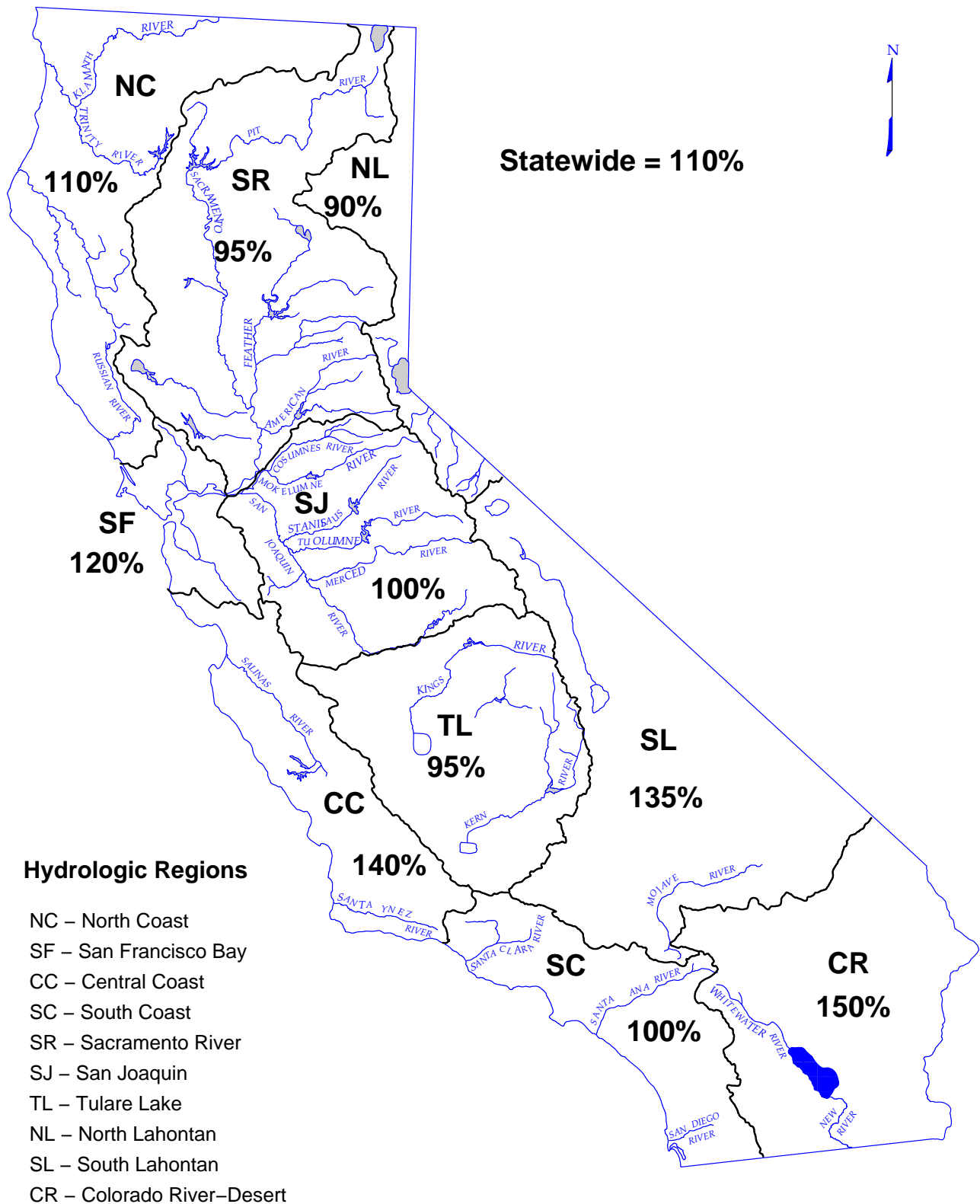
### SUMMARY OF WATER CONDITIONS IN PERCENT OF AVERAGE

HYDROLOGIC REGION	PRECIPITATION OCTOBER 1 TO DATE	FEBRUARY 1 SNOW WATER CONTENT	FEBRUARY 1 RESERVOIR STORAGE	RUNOFF OCTOBER 1 TO DATE	APR-JULY RUNOFF FORECAST	WATER YEAR RUNOFF FORECAST
NORTH COAST	110	155	85	65	110	95
SAN FRANCISCO BAY	120	--	105	70	--	--
CENTRAL COAST	140	--	110	105	--	--
SOUTH COAST	100	--	100	90	--	--
SACRAMENTO RIVER	95	125	75	50	90	75
SAN JOAQUIN RIVER	100	125	90	35	95	85
TULARE LAKE	95	140	65	45	95	85
NORTH LAHONTAN	90	140	80	40	90	80
SOUTH LAHONTAN	135	125	95	65	95	85
COLORADO RIVER- DESERT	150	--	--	--	--	--
<b>STATEWIDE</b>	110	130	85	55	95	80

# SEASONAL PRECIPITATION

IN PERCENT OF AVERAGE TO DATE

October 1, 2007 through January 31, 2008

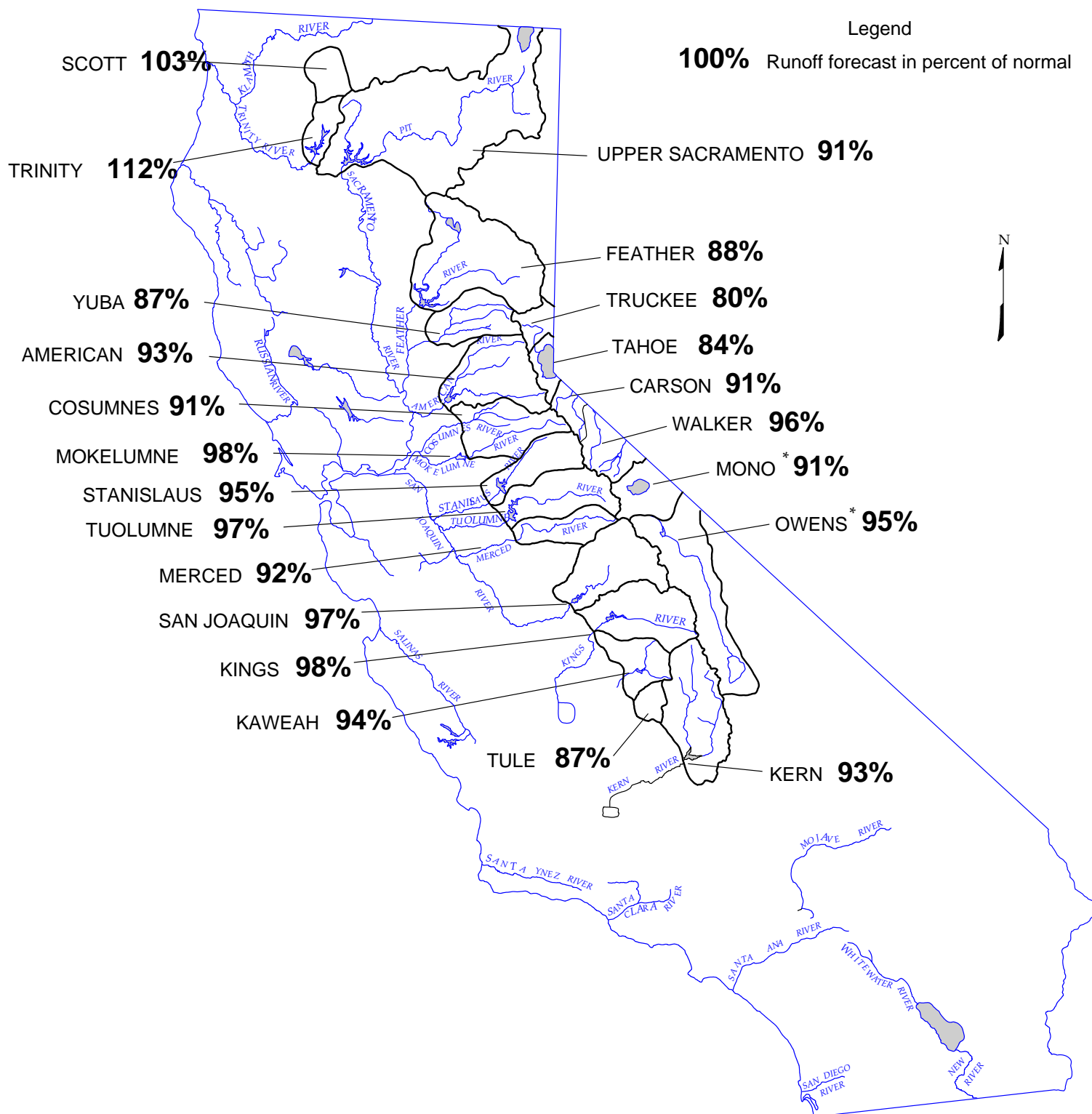


WATER YEAR IS OCTOBER 1 THROUGH SEPTEMBER 30

# DEPARTMENT OF WATER RESOURCES CALIFORNIA COOPERATIVE SNOW SURVEYS

## FORECAST OF APRIL – JULY UNIMPAIRED SNOWMELT RUNOFF

February 1, 2008



**FEBRUARY 1, 2008 FORECASTS  
APRIL-JULY UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet (1)					
	HISTORICAL			FORECAST		
	50 Yr Avg (2)	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg	80 % Probability Range (1)
<b>SACRAMENTO RIVER</b>						
<b>Upper Sacramento River</b>						
Sacramento River at Delta above Shasta Lake	298	711	39	290	97%	
McCloud River above Shasta Lake	392	850	185	380	97%	
Pit River near Montgomery Creek + Squaw Creek	1,066	2,098	480	950	89%	
Total Inflow to Shasta Lake	1,819	3,525	726	<b>1,650</b>	91%	1,190 - 2,650
<b>Sacramento River above Bend Bridge, near Red Bluff</b>	<b>2,494</b>	<b>5,075</b>	<b>943</b>	<b>2,190</b>	<b>88%</b>	<b>1,490 - 3,860</b>
<b>Feather River</b>						
Feather River at Lake Almanor near Prattville (3)	333	675	120	280	84%	
North Fork at Pulga (3)	1,028	2,416	243	870	85%	
Middle Fork near Clio (4)	86	518	4	70	81%	
South Fork at Ponderosa Dam (3)	110	267	13	90	82%	
Feather River at Oroville	1,782	4,676	392	<b>1,570</b>	<b>88%</b>	870 - 3,010
<b>Yuba River</b>						
North Yuba below Goodyears Bar	279	647	51	240	86%	
Inflow to Jackson Mdw and Bowman Reservoirs (3)	112	236	25	95	85%	
South Yuba at Langs Crossing (3)	233	481	57	190	82%	
Yuba River near Smartville plus Deer Creek	1,006	2,424	200	<b>870</b>	<b>87%</b>	470 - 1,560
<b>American River</b>						
North Fork at North Fork Dam (3)	262	716	43	240	92%	
Middle Fork near Auburn (3)	522	1,406	100	470	90%	
Silver Creek Below Camino Diversion Dam (3)	173	386	37	150	87%	
American River below Folsom Lake	1,240	3,074	229	<b>1,150</b>	<b>93%</b>	600 - 2,170
<b>SAN JOAQUIN RIVER</b>						
<b>Cosumnes River at Michigan Bar</b>	<b>126</b>	<b>363</b>	<b>8</b>	<b>115</b>	<b>91%</b>	<b>45 - 295</b>
<b>Mokelumne River</b>						
North Fork near West Point (5)	437	829	104	400	92%	
Total Inflow to Pardee Reservoir	461	1,065	102	<b>450</b>	<b>98%</b>	310 - 750
<b>Stanislaus River</b>						
Middle Fork below Beardsley Dam (3)	334	702	64	310	93%	
North Fork Inflow to McKays Point Dam (3)	224	503	34	210	94%	
Stanislaus River below Goodwin Reservoir (7)	702	1,710	116	<b>670</b>	<b>95%</b>	440 - 1,130
<b>Tuolumne River</b>						
Cherry Creek & Eleanor Creek near Hetch Hetchy	315	727	97	300	95%	
Tuolumne River near Hetch Hetchy	604	1,392	153	590	98%	
Tuolumne River below La Grange Reservoir (7)	1,220	2,682	301	<b>1,180</b>	<b>97%</b>	790 - 1,970
<b>Merced River</b>						
Merced River at Pohono Bridge	372	888	80	350	94%	
Merced River below Merced Falls (7)	632	1,587	123	<b>580</b>	<b>92%</b>	400 - 1,090
<b>San Joaquin River</b>						
San Joaquin River at Mammoth Pool (8)	1,026	2,279	235	1,010	98%	
Big Creek below Huntington Lake (9)	91	264	11	90	99%	
South Fork near Florence Lake (8)	201	511	58	210	104%	
San Joaquin River inflow to Millerton Lake	1,254	3,355	262	<b>1,210</b>	<b>97%</b>	850 - 2,030
<b>TULARE LAKE</b>						
<b>Kings River</b>						
North Fork Kings River near Cliff Camp (3)	239	565	50	230	96%	
Kings River below Pine Flat Reservoir	1,224	3,113	274	<b>1,200</b>	<b>98%</b>	800 - 2,000
<b>Kaweah River below Terminus Reservoir</b>	<b>286</b>	<b>814</b>	<b>62</b>	<b>270</b>	<b>94%</b>	<b>170 - 510</b>
<b>Tule River below Lake Success</b>	<b>64</b>	<b>259</b>	<b>2</b>	<b>55</b>	<b>87%</b>	<b>29 - 145</b>
<b>Kern River</b>						
Kern River near Kernville	384	1,203	83	360	94%	
Kern River inflow to Lake Isabella	461	1,657	84	<b>430</b>	<b>93%</b>	280 - 910

(1) See inside back cover for definition

(2) All 50 year averages are based on years 1956-2005 unless otherwise noted

(3) 50 year average based on years 1941-90

(8) 50 year average based on years 1953-2002

(9) 50 year average based on years 1946-1995

(4) 44 year average based on years 1936-79

(5) 36 year average based on years 1936-72

(6) 45 year average based on years 1936-81

**FEBRUARY 1, 2008 FORECASTS  
WATER YEAR UNIMPAIRED RUNOFF**

Unimpaired Runoff in 1,000 Acre-Feet (1)													
HISTORICAL			DISTRIBUTION								FORECAST		
50 Yr Avg (2)	Max of Record	Min of Record	Oct Thru Jan*	Feb	Mar	Apr	May	Jun	Jul	Aug & Sep	Water Year Forecasts	Pct of Avg	80 % Probability Range (1)
887	1,965	165											
1,217	2,353	557											
3,159	5,150	1,484											
6,107	10,796	2,479	1,335	660	680	610	490	305	245	420	<b>4,745</b>	78%	3,820 - 6,815
8,907	17,180	3,294	2,010	1,065	1,070	840	640	400	310	530	<b>6,865</b>	77%	5,560 - 9,690
780	1,269	366											
2,417	4,400	666											
219	637	24											
291	562	32											
4,620	9,492	994	500	480	540	610	550	270	140	180	<b>3,270</b>	71%	2,215 - 5,860
564	1,056	102											
181	292	30											
379	565	98											
2,373	4,926	369	225	200	270	340	360	130	40	45	<b>1,610</b>	68%	1,000 - 2,685
616	1,234	66											
1,070	2,575	144											
318	705	59											
2,719	6,382	349	205	230	320	410	440	250	50	29	<b>1,934</b>	71%	1,175 - 3,525
390	1,253	20	30	50	57	56	41	15	3	1	<b>253</b>	65%	115 - 605
626	1,009	197											
755	1,800	129	25	55	75	125	190	120	15	5	<b>610</b>	81%	420 - 1,010
471	929	88											
1,171	2,952	155	75	75	110	190	260	170	50	15	<b>945</b>	81%	660 - 1,510
461	1,147	123											
770	1,661	258											
1,951	4,631	383	110	120	170	280	460	350	90	30	<b>1,610</b>	83%	1,110 - 2,580
461	1,020	92											
1,007	2,787	150	55	60	90	150	220	160	50	23	<b>808</b>	80%	570 - 1,480
1,337	2,964	308											
112	298	14											
248	653	71											
1,836	4,642	362	95	110	150	235	445	390	140	80	<b>1,645</b>	90%	1,170 - 2,630
284	607	58											
1,721	4,287	386	85	70	120	230	440	390	140	55	<b>1,530</b>	89%	1,040 - 2,500
454	1,402	94	31	25	40	65	105	75	25	8	<b>374</b>	82%	240 - 680
148	615	16	16	13	19	22	20	10	3	1	<b>104</b>	70%	60 - 250
558	1,577	163											
730	2,318	175	55	30	50	85	145	130	70	35	<b>600</b>	82%	400 - 1,210

\* Unimpaired runoff in prior months based on measured flows

(7) Forecast point names based on USGS gage names. Stanislaus below Goodwin also known as inflow to New Melones, Tuolumne River below La Grange also known as inflow to Don Pedro, Merced River below Merced Falls also known as inflow to McClure.

**FEBRUARY 1, 2008 FORECASTS  
APRIL-JULY UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Apr-Jul Unimpaired Runoff in 1,000 Acre-Feet (1)				
	HISTORICAL			FORECAST	
	50 Yr Avg (2)	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg

**NORTH COAST**

**Trinity River**

Trinity River at Lewiston Lake (3) 654 1,593 80 **730** 112%

**Scott River**

Scott River near Fort Jones (6) 200 400 30 **205** 103%

**Klamath River**

Total inflow to Upper Klamath Lake (4) 515 939 149 **490** 95%

**NORTH LAHONTAN**

**Truckee River**

Lake Tahoe to Farad accretions 261 713 52 **220** 84%  
Lake Tahoe Rise (assuming gates closed, ft) 1.4 5.4 0.2 **1.1** 80%

**Carson River**

West Fork Carson River at Woodfords 54 135 12 **45** 83%  
East Fork Carson River near Gardnerville 187 407 43 **175** 94%

**Walker River**

West Walker River below Little Walker, near Coleville 154 330 35 **150** 97%  
East Walker River near Bridgeport 64 209 7 **60** 94%

**SOUTH LAHONTAN**

**Owens River**

Total tributary flow to Owens River (5) 235 579 96 **223** 95%

**FEBRUARY 1, 2008 FORECASTS  
WATER YEAR UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Water Year Unimpaired Runoff in 1,000 Acre-Feet (1)					
	HISTORICAL			FORECAST		
	50 Yr Avg (2)	Max of Record	Min of Record	Water Year Forecasts	Pct of Avg	80 % Probability Range (1)

**NORTH COAST**

**Trinity River**

Trinity River at Lewiston Lake (3) 1,398 2,990 200 **1,255** 90% 813 - 1818

(1) See inside back cover for definition

(2) All 50 year averages are based on years 1956-2005 unless otherwise noted

(3) Forecast by National Weather Service California-Nevada River Forecast Center.

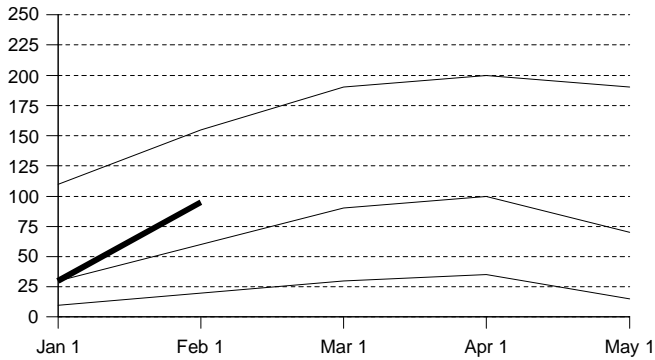
(4) Forecast by U.S. Natural Resources Conservation Service and National Weather Service California-Nevada River Forecast Center, April through September forecast, 30 year average based on years 1971-2000.

(5) Forecast by Department of Water and Power, City of Los Angeles, average based on years 1951-2000.



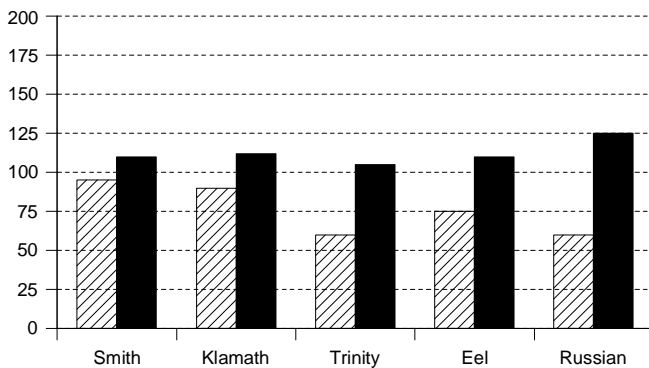
## Snowpack Accumulation

### Water Content in % of April 1 Average



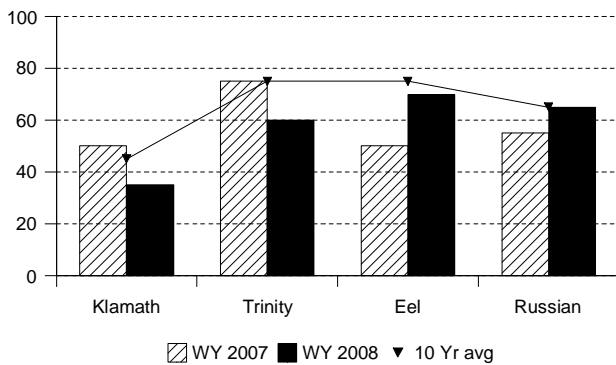
### Precipitation

#### October 1 to date in % of Average



## Reservoir Storage

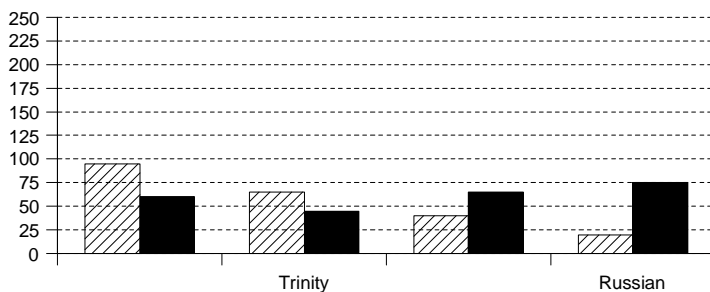
### Contents of major reservoirs in % of capacity



▨ WY 2007 ■ WY 2008 ▼ 10 Yr avg

## Runoff

### October 1 to date in % of average



Klamath, Copco to Orelans

Eel

## NORTH COAST REGION

**SNOWPACK**- First of the month measurements made at 6 snow courses indicate an area wide snow water equivalent of 24.8 inches. This is 155 percent of the February 1 average and 95 percent of the seasonal (April 1) average. Last year at this time the pack was holding 8.4 inches of water.

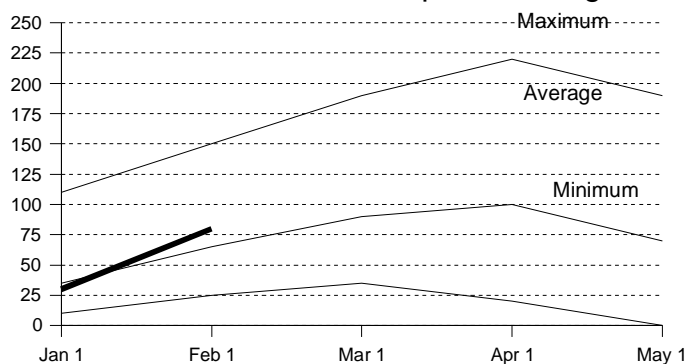
**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on this area was 110 percent of normal. Precipitation last month was about 145 percent of the monthly average. Seasonal precipitation at this time last year stood at 75 percent of normal.

**RESERVOIR STORAGE**- First of the month storage in 6 reservoirs was 1.8 million acre-feet which is 85 percent of average. About 60 percent of available capacity was being used. Storage in these reservoirs at this time last year was 100 percent of average.

**RUNOFF** -Seasonal runoff of streams draining the area totaled 3.3 million acre-feet which is 65 percent of the average for this period. Last year, runoff for the same period was 55 percent of average.

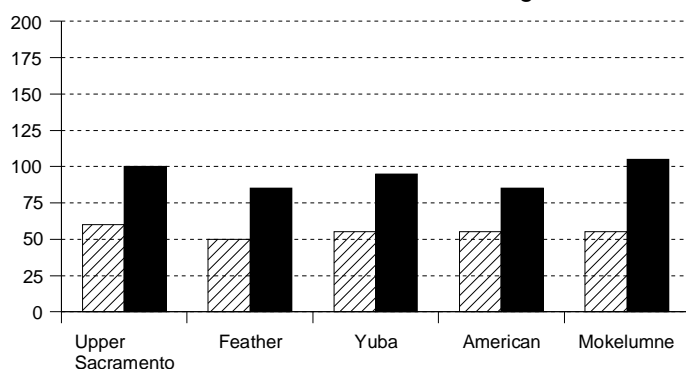
## Snowpack Accumulation

### Water Content in % of April 1 Average



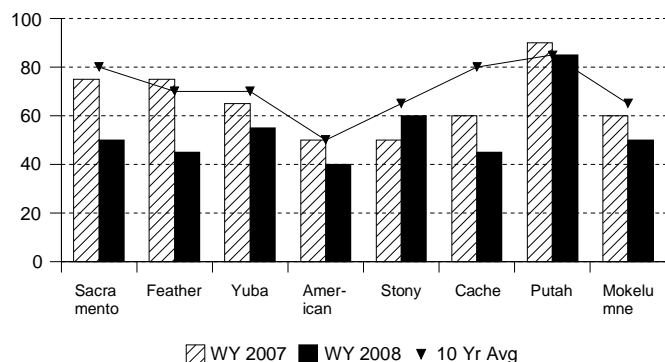
## Precipitation

### October 1 to date in % of Average



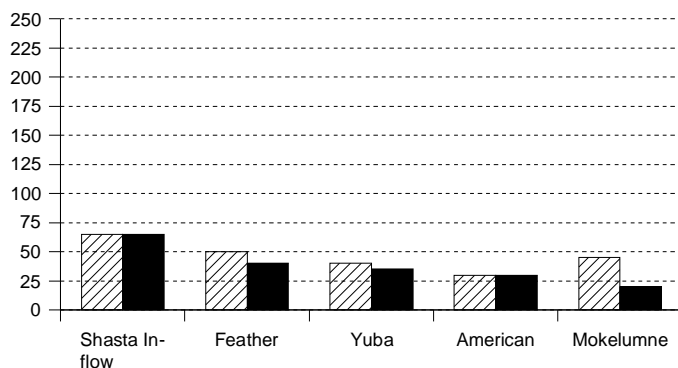
## Reservoir Storage

### Contents of major reservoirs in % of capacity



## Runoff

### October 1 to date in % of average



## SACRAMENTO RIVER REGION

**SNOWPACK** - First of the month measurements made at 59 snow courses indicate an area wide snow water equivalent of 23.2 inches. This is 125 percent of the February 1 average and 80 percent of the seasonal (April 1) average. Last year at this time the pack was holding 7.8 inches of water.

**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on this area was 95 percent of normal. Precipitation last month was about 145 percent of the monthly average. Seasonal precipitation at this time last year stood at 55 percent of normal.

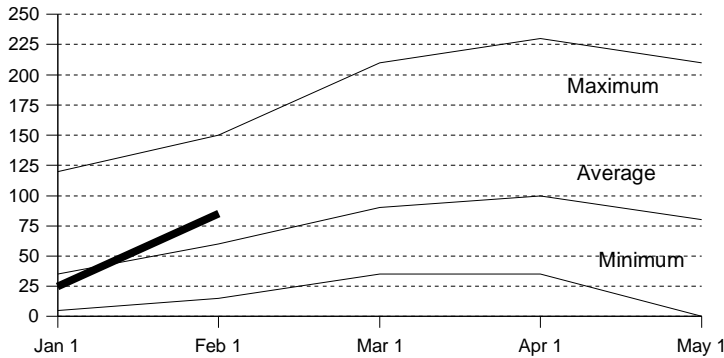
**RESERVOIR STORAGE** - First of the month storage in 43 reservoirs was 8.2 million acre-feet which is 75 percent of average. About 50 percent of available capacity was being used. Storage in these reservoirs at this time last year was 105 percent of average.

**RUNOFF** - Seasonal runoff of streams draining the area totaled 2.9 million acre-feet which is 50 percent of average for this period. Last year, runoff for the same period was 55 percent of average.

The **Sacramento Region 40-30-30 Water Supply Index** is forecast to be 6.3 assuming median meteorological conditions for the remainder of the year. This classifies the year as "dry" in the Sacramento Valley according to the State Water Resources Control Board.

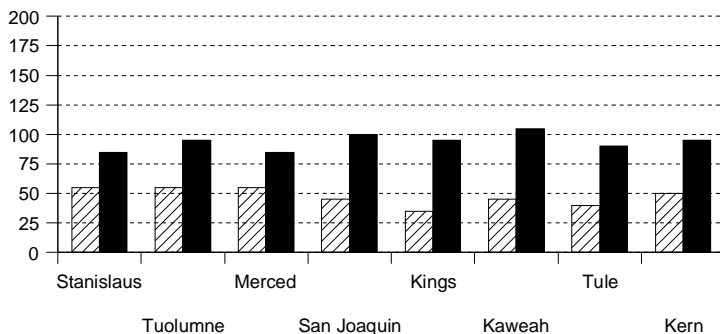
## Snowpack Accumulation

Water Content in % of April 1 Average



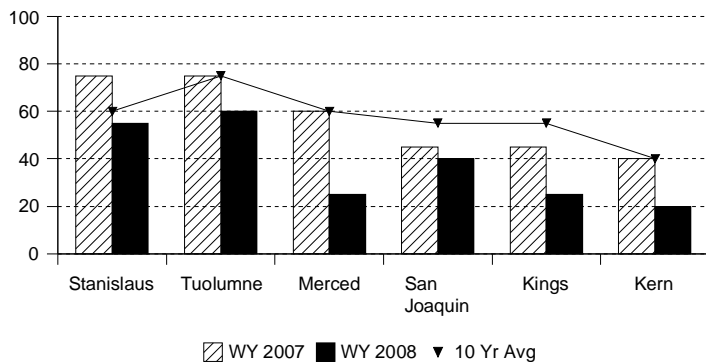
## Precipitation

October 1 to date in % of Average



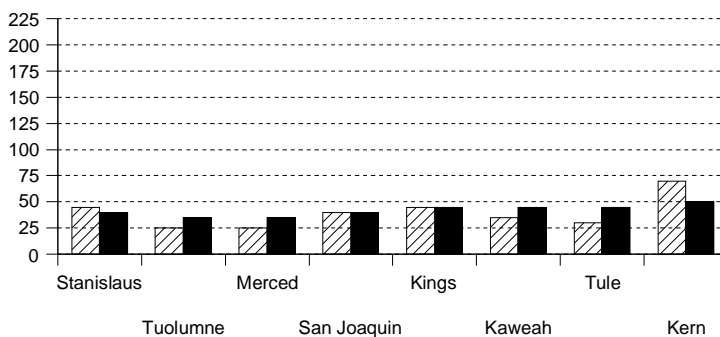
## Reservoir Storage

Contents of major reservoirs in % of capacity



## Runoff

October 1 to date in % of average



## SAN JOAQUIN RIVER AND TULARE LAKE REGIONS

**SNOWPACK**- First of the month measurements made at 59 **San Joaquin River Region** snow courses indicate an area wide snow water equivalent of 24 inches. This is 125 percent of the February 1 average and 80 percent of seasonal average. Last year at this time the pack was holding 8.5 inches of water.

At the same time 37 **Tulare Lake Region** snow courses indicated a basin-wide snow water equivalent of 20.1 inches which is 140 percent of the average for February 1 and 85 percent of the seasonal average. Last year at this time the basin was holding 5.1 inches of water.

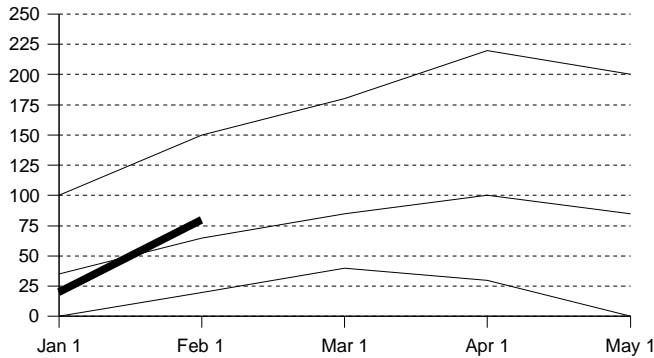
**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on the **San Joaquin Region** was 100 percent of normal. Precipitation last month was about 165 percent of the monthly average. Seasonal precipitation at this time last year stood at 55 percent of normal. Seasonal precipitation on the **Tulare Lake Region** was 95 percent of normal. Precipitation last month was about 140 percent of the monthly average. Seasonal precipitation at this time last year stood at 40 percent of normal.

**RESERVOIR STORAGE**- First of the month storage in 34 **San Joaquin Region** reservoirs was 6.3 million acre-feet which is 90 percent of average. About 55 percent of available capacity was being used. Storage in these reservoirs at this time last year was 120 percent of average. First of the month storage in 6 **Tulare Lake Region** reservoirs was 500 thousand acre-feet which is 65 percent of average and about 25 percent of available capacity. Storage in these reservoirs at this time last year was 110 percent of average.

**RUNOFF**- Seasonal runoff of streams draining the **San Joaquin Region** totaled 392 thousand acre-feet which is 35 percent of average for this period. Last year, runoff for the same period was 35 percent of average. Seasonal runoff of streams draining the **Tulare Lake Basin** totaled 187 thousand acre-feet which is 45 percent of average for this period. Last year runoff for this same period was 45 percent of average. The **San Joaquin Region 60-20-20 Water Supply Index** is forecast to be 2.4 assuming 75 percent exceedance meteorological conditions. This classifies the year as "dry" in the San Joaquin Region according to the State Water Resources Control Board.

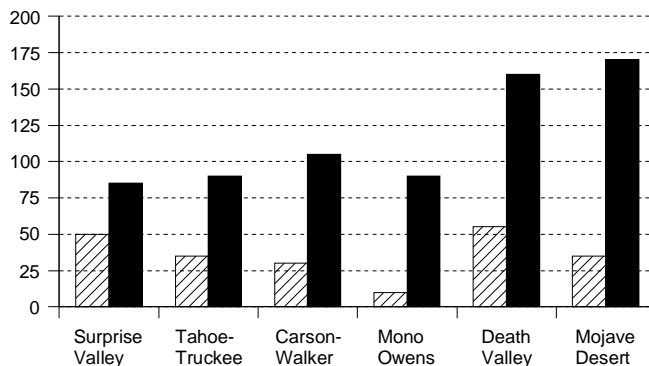
## Snowpack Accumulation

Water Content in % of April 1 Average



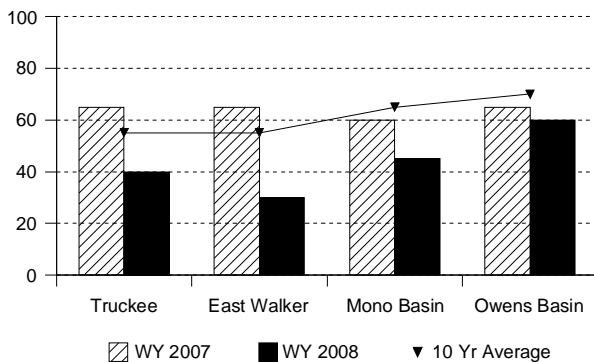
## Precipitation

October 1 to date in % of Average



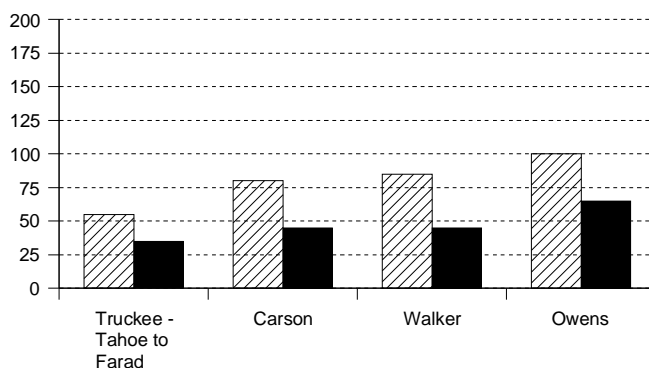
## Reservoir Storage

Contents of major reservoirs in % of capacity



## Runoff

October 1 to date in % of average



## NORTH AND SOUTH LAHONTAN REGIONS

**SNOWPACK**- First of the month measurements made at 10 **North Lahontan** snow courses indicate an area wide snow water equivalent of 15.8 inches. This is 140 percent of the February 1 average and 90 percent of seasonal (April 1) average. Last year at this time the pack was holding 5.8 inches of water. At the same time 16 **South Lahontan Region** snow courses indicated a basin-wide snow water equivalent of 4.3 inches which is 125 percent of the average for February 1 and 80 percent of the seasonal average. Last year at this time the basin was holding 4.3 inches of water.

**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on the **North Lahontan Region** was 90 percent of normal. Precipitation last month was about 150 percent of the monthly average. Seasonal precipitation at this time last year stood at 40 percent of normal. Seasonal precipitation on the **South Lahontan Region** was 135 percent of normal. Precipitation last month was about 250 percent of the monthly average. Seasonal precipitation at this time last year stood at 35 percent of normal.

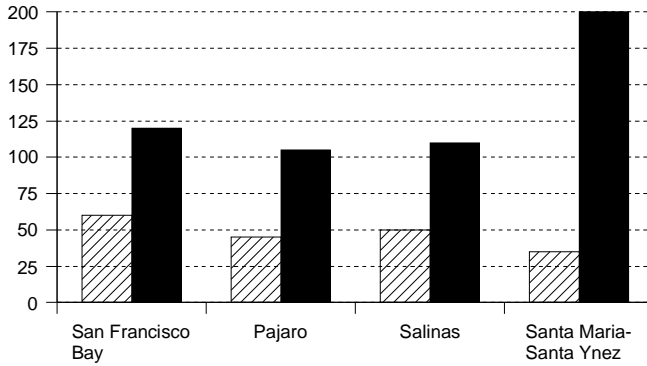
**RESERVOIR STORAGE**- First of the month storage in 5 **North Lahontan** reservoirs was 418 thousand acre-feet which is 80 percent of average. About 40 percent of available capacity was being used. Storage in these reservoirs at this time last year was 135 percent of average. Lake Tahoe was 2.0 feet above its natural rim on February 1. First of the month storage in 8 **South Lahontan** reservoirs was 252 thousand acre-feet which is 95 percent of average and about 65 percent of available capacity. Storage in these reservoirs at this time last year was 105 percent of average.

**RUNOFF**- Seasonal runoff of streams draining the **North Lahontan Region** totaled 61 thousand acre-feet which is 40 percent of average for this period. Last year, runoff for the same period was 70 percent of average. Seasonal runoff of the Owens River in the **South Lahontan Region** totaled 29 thousand acre-feet which is 65 percent of average for this period. Last year runoff for this same period was 100 percent of average.

## SAN FRANCISCO BAY AND CENTRAL COAST REGIONS

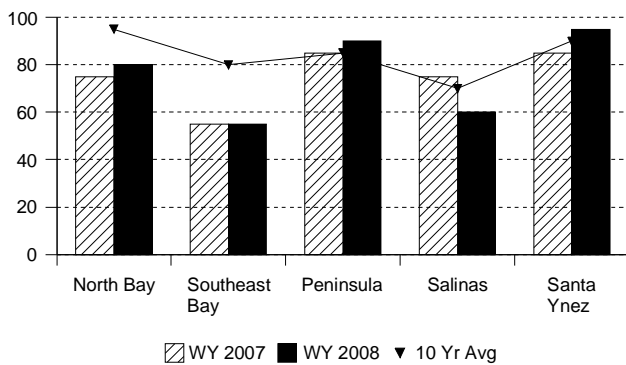
### Precipitation

October 1 to date in % of Average



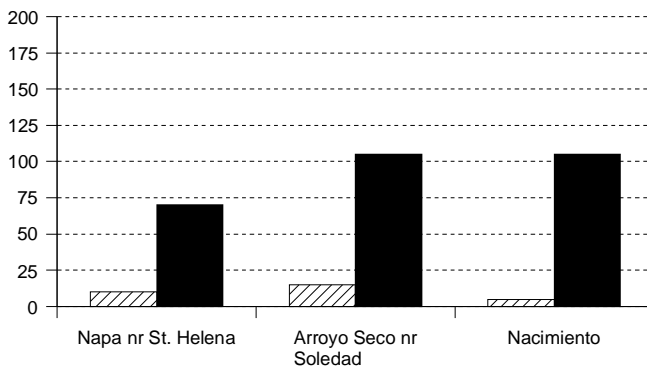
### Reservoir Storage

Contents of major reservoirs in % of capacity



### Runoff

October 1 to date in % of average



**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on the **San Francisco Bay Region** was 120 percent of normal. Precipitation last month was about 190 percent of the monthly average. Seasonal precipitation at this time last year stood at 65 percent of normal. Seasonal precipitation on the **Central Coast Region** was 140 percent of normal. Precipitation last month was about 250 percent of the monthly average. Seasonal precipitation at this time last year stood at 45 percent of normal.

**RESERVOIR STORAGE** - First of the month storage in 14 **San Francisco Bay Region** reservoirs was 364 thousand acre-feet which is 105 percent of average. About 65 percent of available capacity was being used. Storage in these reservoirs at this time last year was 100 percent of average. First of the month storage in 6 **Central Coast Region** reservoirs was 650 thousand acre-feet which is 110 percent of average and about 65 percent of available capacity. Storage in these reservoirs at this time last year was 130 percent of average.

**RUNOFF** - Seasonal runoff of the Napa River in the **San Francisco Bay Region** totaled 25 thousand acre-feet which is 70 percent of average for this period. Last year, runoff for the same period was 10 percent of average. Seasonal runoff of streams draining the **Central Coast Region** totaled 130 thousand acre-feet which is 105 percent of average for this period. Last year runoff for this same period was 10 percent of average.

## **SOUTH COAST REGION**

***PRECIPITATION*** - October through January (seasonal) precipitation on the **South Coast Region** was 115 percent of normal. January precipitation was 195 percent of the monthly average. Seasonal precipitation at this time last year was 30 percent of normal. Seasonal precipitation on the **Colorado River-Desert Region** was 175 percent of normal. Last year seasonal precipitation on the **Colorado River-Desert Region** was 10 percent of normal. Precipitation in January was about 155 percent of average.

***RESERVOIR STORAGE*** - February 1 storage in 29 major **South Coast Region** reservoirs was 1.3.million acre-feet or 100 percent of average. About 70 percent of available capacity was being used. Storage in these reservoirs at this time last year was 90 percent of average. On February 1 combined storage in Lakes Powell, Mead, Mohave and Havasu was about 26.1 million acre-feet or about 65 percent of average. About 50 percent of available capacity was in use. Last year at this time, these reservoirs were storing 70 percent of average.

***RUNOFF*** - Seasonal runoff from selected **South Coast Region** streams totaled about 15.3 thousand acre-feet which is 90 percent of average. Seasonal runoff from these streams last year was 35 percent of average.

## **COLORADO RIVER**

The April -July inflow to Lake Powell is forecast to be 9.5 million acre-feet, which is 120 percent of average. The February 1 snowpack in the Colorado River basin above Lake Powell was 120 percent of average, lowest in the Upper Green at 90 percent and highest in the Colorado Plateau 175 percent.

# MAJOR WATER DISTRIBUTION PROJECTS

## RESERVOIR STORAGE

(AVERAGES BASED ON 1951-2000 OR PERIOD RECORD)

RESERVOIR	CAPACITY 1,000 AF	AVERAGE STORAGE 1,000 AF	2007 1,000 AF	STORAGE AT END OF January 2008 1,000 AF	PERCENT AVERAGE	PERCENT CAPACITY
<i>STATE WATER PROJECT</i>						
Lake Oroville	3,538	2,384	2,795	1,330	56%	38%
San Luis Reservoir (SWP)	1,062	865	1,165	768	89%	72%
Lake Del Valle	77	31	26	40	129%	52%
Lake Silverwood	73	65	70	74	114%	101%
Pyramid Lake	171	163	157	164	101%	96%
Castaic Lake	325	257	182	306	119%	94%
Perris Lake	132	113	69	72	64%	55%
<i>CENTRAL VALLEY PROJECT</i>						
Trinity Lake	2,448	1,763	1,801	1,421	81%	58%
Lake Shasta	4,552	3,133	3,374	2,179	70%	48%
Whiskeytown Lake	241	205	205	208	102%	86%
Folsom Lake	977	516	468	278	54%	28%
New Melones Reservoir	2,420	1,392	1,977	1,489	107%	62%
Millerton Lake	520	340	237	218	64%	42%
San Luis Reservoir (CVP)	971	753	778	774	103%	80%
<i>COLORADO RIVER PROJECT</i>						
Lake Mead	26,159	20,307	14,309	13,017	64%	50%
Lake Powell	24,322	18,432	11,703	10,880	59%	45%
Lake Mohave	1,810	1,677	1,656	1,663	99%	92%
Lake Havasu	619	547	574	555	101%	90%
<i>EAST BAY MUNICIPAL UTILITY DISTRICT</i>						
Pardee Res	198	178	161	176	99%	89%
Camanche Reservoir	417	249	319	201	81%	48%
East Bay (4 res.)	147	126	107	0	0%	0%
<i>CITY AND COUNTY OF SAN FRANCISCO</i>						
Hetch-Hetchy Reservoir	360	163	219	170	104%	47%
Cherry Lake	268	128	240	150	117%	56%
Lake Eleanor	26	10	16	2	24%	9%
South Bay/Peninsula (4 res.)	225	160	152	157	98%	70%
<i>CITY OF LOS ANGELES (D.W.P.)</i>						
Lake Crowley	183	123	123	117	95%	64%
Grant Lake	48	28	39	24	85%	50%
Other Aqueduct Storage (6 res.)	83	75	48	58	77%	69%

# TELEMETERED SNOW WATER EQUIVALENTS

February 1, 2008

(AVERAGES BASED ON PERIOD RECORD)

		INCHES OF WATER EQUIVALENT				
BASIN NAME		APRIL 1		PERCENT	24 HRS	1 WEEK
STATION NAME	ELEV	AVERAGE	Feb 1	OF AVERAGE	PREVIOUS	PREVIOUS
<b>TRINITY RIVER</b>						
Peterson Flat	7150'	29.2	25.4	87.1	23.5	18.6
Red Rock Mountain	6700'	39.6	—	—	—	—
Bonanza King	6450'	40.5	34.5	85.2	33.0	28.6
Shimmy Lake	6400'	40.3	35.8	88.8	34.1	27.9
Middle Boulder 3	6200'	28.3	27.4	96.7	25.8	20.8
Highland Lakes	6030'	29.9	30.7	102.7	28.7	23.4
Scott Mountain	5900'	16.0	24.6	153.8	23.2	18.6
Mumbo Basin	5650'	22.4	—	—	—	—
Big Flat	5100'	15.8	20.9	132.0	19.3	15.1
Crowder Flat	5100'	—	6.9	—	6.7	5.3
<b>SACRAMENTO RIVER</b>						
Cedar Pass	7100'	18.1	12.0	66.3	11.4	9.3
Blacks Mountain	7050'	12.7	—	—	—	—
Sand Flat	6750'	42.4	22.5	53.1	21.1	17.1
Medicine Lake	6700'	32.6	16.7	51.2	15.8	12.8
Adin Mountain	6200'	13.6	10.8	79.4	9.7	8.0
Snow Mountain	5950'	27.0	27.1	100.4	25.0	19.3
Slate Creek	5700'	29.0	38.5	132.8	35.9	28.6
Stouts Meadow	5400'	36.0	—	—	—	—
<b>FEATHER RIVER</b>						
Lower Lassen Peak	8250'	—	55.2	—	51.6	40.9
Kettle Rock	7300'	25.5	19.1	74.7	17.6	13.4
Grizzly Ridge	6900'	29.7	15.3	51.6	14.4	10.7
Pilot Peak	6800'	52.6	27.9	53.0	24.8	19.2
Gold Lake	6750'	36.5	20.5	56.1	19.3	15.2
Humbog	6500'	28.0	26.9	96.0	25.4	18.8
Harkness Flat	6200'	28.5	20.7	72.6	18.5	14.4
Rattlesnake	6100'	14.0	20.0	143.1	18.6	14.2
Bucks Lake	5750'	44.7	38.5	86.2	35.9	28.1
Four Trees	5150'	20.0	34.2	170.8	30.9	23.8
<b>EEL RIVER</b>						
Noel Spring	5100'	—	23.4	—	22.1	14.9
<b>YUBA &amp; AMERICAN RIVERS</b>						
Lake Lois	8600'	39.5	—	—	—	—
Schneiders	8750'	34.5	24.7	71.6	23.4	18.3
Carson Pass	8353'	—	20.6	—	19.7	15.8
Caples Lake	8000'	30.9	20.3	65.6	19.3	15.5
Alpha	7600'	35.9	25.4	70.9	24.0	18.5
Meadow Lake	7200'	55.5	30.7	55.3	28.0	21.6
Silver Lake	7100'	22.7	18.9	83.4	17.7	14.3
Central Sierra Snow Lab	6900'	33.6	27.9	83.0	25.7	20.3
Huysink	6600'	42.6	23.4	54.9	21.7	17.4
Van Vleck	6700'	35.9	27.7	77.2	26.1	21.1
Robinson Cow Camp	6480'	—	28.6	—	26.3	21.0
Robbs Saddle	5900'	21.4	17.2	80.4	16.2	13.3
Greek Store	5600'	21.0	—	—	—	—
Blue Canyon	5280'	9.0	26.5	294.8	24.0	19.2
Robbs Powerhouse	5150'	5.2	14.5	278.8	13.4	10.9
<b>MOKELUMNE &amp; STANISLAUS RIVERS</b>						
Deadman Creek	9250'	37.2	20.2	54.4	19.8	12.0
Highland Meadow	8700'	47.9	23.4	48.9	22.1	18.4
Gianelli Meadow	8400'	55.5	26.1	47.0	24.9	19.6
Lower Relief Valley	8100'	41.2	25.7	62.3	24.1	19.0
Blue Lakes	8000'	33.1	18.6	56.2	17.3	13.7
Mud Lake	7900'	44.9	31.2	69.5	29.8	23.9
Stanislaus Meadow	7750'	47.5	24.3	51.1	22.7	18.6
Bloods Creek	7200'	35.5	20.1	56.7	18.8	14.7
Black Springs	6500'	32.0	21.1	66.1	19.9	15.6
<b>TUOLUMNE &amp; MERCED RIVERS</b>						
Dana Meadows	9800'	27.7	23.2	83.8	21.9	17.4
Slide Canyon	9200'	41.1	25.5	62.0	24.2	19.6
Lake Tenaya	8150'	33.1	20.4	61.8	19.0	15.2
Tuolumne Meadows	8600'	22.6	15.2	67.3	14.6	11.5
Horse Meadow	8400'	48.6	30.5	62.8	29.0	23.0
Ostrander Lake	8200'	34.8	20.6	59.1	19.6	15.0
White Wolf	7900'	—	22.2	—	21.0	16.0
Paradise Meadow	7650'	41.3	24.4	59.0	22.5	18.6
Gin Flat	7050'	34.2	20.6	60.1	19.6	15.2
Lower Kibbie Ridge	6700'	27.4	17.4	63.6	16.3	13.3

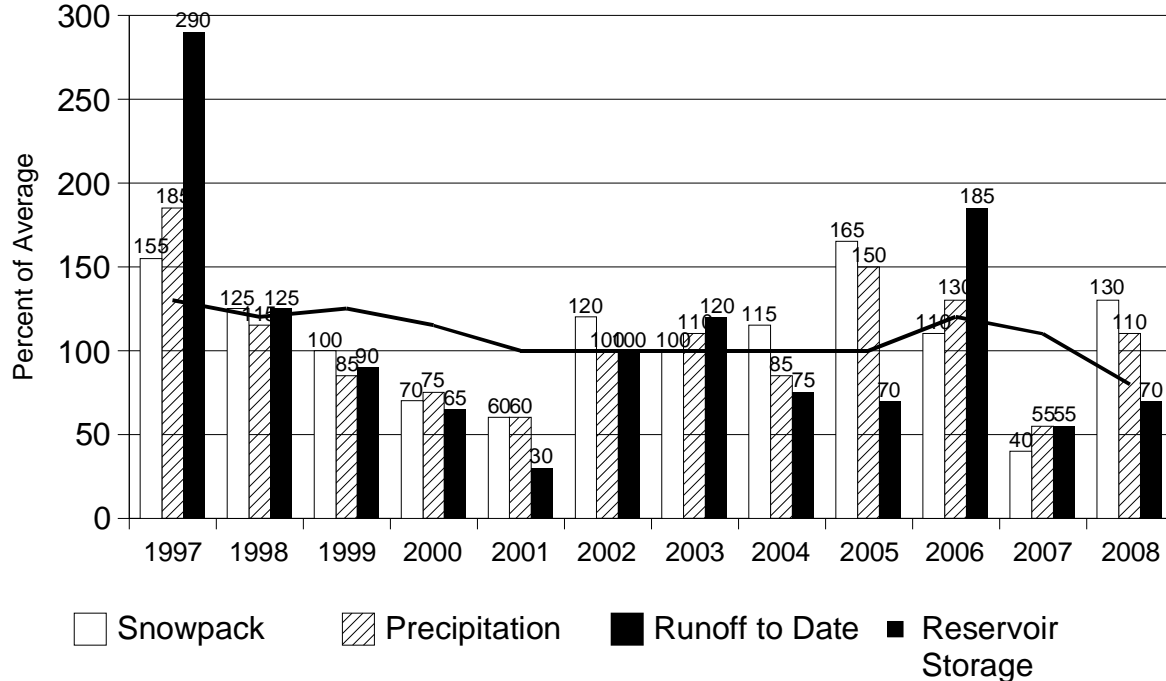


		INCHES OF WATER EQUIVALENT				
BASIN NAME		APRIL 1	PERCENT		24 HRS	1 WEEK
STATION NAME	ELEV	AVERAGE	Feb 1	OF AVERAGE	PREVIOUS	PREVIOUS
SAN JOAQUIN RIVER						
Volcanic Knob	10050'	30.1	19.1	63.6	18.1	14.2
Agnew Pass	9450'	32.3	20.1	62.3	19.8	16.3
Kaiser Point	9200'	37.8	16.4	43.3	15.8	11.5
Green Mountain	7900'	30.8	21.4	69.4	20.4	16.5
Tamarack Summit	7550'	30.5	22.4	73.5	21.9	17.5
Chilkoot Meadow	7150'	38.0	27.6	72.6	26.8	19.9
Huntington Lake	7000'	20.1	18.2	90.7	17.3	13.1
Graveyard Meadow	6900'	18.8	17.3	91.9	16.7	13.2
Poison Ridge	6900'	28.9	24.1	83.5	23.2	16.7
KINGS RIVER						
Bishop Pass	11200'	34.0	13.2	38.9	—	12.6
Charlotte Lake	10400'	27.5	20.5	74.7	19.9	16.6
State Lakes	10300'	29.0	—	—	—	—
Mitchell Meadow	9900'	32.9	24.9	75.7	23.9	20.2
Blackcap Basin	10300'	34.3	25.3	73.8	24.5	21.2
Upper Burnt Corral	9700'	34.6	19.8	57.3	19.2	14.9
West Woodchuck Meadow	9100'	32.8	21.3	64.9	20.8	15.7
Big Meadows	7600'	25.9	—	—	—	—
KAWEAH & TULE RIVERS						
Farewell Gap	9500'	34.5	28.8	83.4	27.7	22.2
Quaking Aspen	7200'	21.0	22.0	104.6	21.6	18.5
Giant Forest	6650'	10.0	12.0	120.0	11.9	8.7
KERN RIVER						
Upper Tyndall Creek	11400'	27.7	16.3	58.8	15.9	11.1
Crabtree Meadow	10700'	19.8	12.3	62.4	12.2	9.3
Chagoopa Plateau	10300'	21.8	15.3	70.2	14.0	10.5
Pascoes	9150'	24.9	17.7	71.1	17.5	14.6
Tunnel Guard Station	8900'	15.6	12.4	79.6	12.4	10.1
Wet Meadows	8950'	30.3	23.3	76.9	23.5	20.9
Casa Vieja Meadows	8300'	20.9	17.4	83.4	17.2	14.6
Beach Meadows	7650'	11.0	10.2	92.7	9.7	7.7
SURPRISE VALLEY AREA						
Dismal Swamp	7050'	29.2	15.1	51.7	13.6	11.2
TRUCKEE RIVER						
Independence Lake	8450'	41.4	25.3	61.1	23.5	18.2
Big Meadows	8700'	25.7	14.9	58.0	14.2	11.5
Squaw Valley	8200'	46.5	26.3	56.6	24.2	19.8
Independence Camp	7000'	21.8	14.1	64.7	13.1	9.3
Independence Creek	6500'	12.7	13.0	102.4	12.0	9.2
Truckee 2	6400'	14.3	13.1	91.6	12.4	9.6
LAKE TAHOE BASIN						
Mount Rose Ski Area	8900'	38.5	23.4	60.8	22.2	17.8
Heavenly Valley	8800'	28.1	17.1	60.9	16.1	13.0
Hagans Meadow	8000'	16.5	13.9	84.2	12.9	10.1
Marlette Lake	8000'	21.1	16.9	80.1	16.1	12.5
Echo Peak 5	7800'	39.5	28.9	73.2	26.5	20.4
Rubicon Peak 2	7500'	29.1	17.2	59.1	15.9	12.6
Tahoe City Cross	6750'	16.0	14.8	92.5	13.9	10.6
Ward Creek 3	6750'	39.4	24.7	62.7	22.9	17.8
Fallen Leaf Lake	6250'	7.0	9.4	134.3	8.4	6.5
CARSON RIVER						
Ebbetts Pass	8700'	38.8	18.8	48.5	18.2	15.6
Poison Flat	7900'	16.2	14.6	90.1	14.0	11.1
Monitor Pass	8350'	—	10.9	—	10.7	8.6
Spratt Creek	6150'	4.5	8.3	184.4	7.5	5.4
WALKER RIVER						
Leavitt Lake	9600'	—	36.1	—	34.5	26.1
Virginia Lakes	9300'	20.3	13.4	66.0	12.6	9.0
Lobdell Lake	9200'	17.3	12.8	74.0	12.3	9.8
Sonora Pass Bridge	8750'	26.0	16.6	63.8	15.8	12.3
Leavitt Meadows	7200'	8.0	12.9	161.2	12.5	9.3
OWENS RIVER/MONO LAKE						
Gem Pass	10750'	31.7	23.8	75.2	22.9	18.0
Sawmill	10200'	19.4	12.8	65.8	12.5	10.6
Cottonwood Lakes	10150'	11.6	11.7	100.9	11.7	10.0
Big Pine Creek	9800'	17.9	17.3	96.8	16.9	11.0
South Lake	9600'	16.0	13.2	82.5	12.8	10.6
Mammoth Pass	9300'	42.4	23.9	56.3	22.9	18.7
Rock Creek Lakes	10000'	14.0	15.6	111.6	15.0	11.6

NORMAL SNOWPACK ACCUMULATION EXPRESSED AS A PERCENT OF APRIL 1ST AVERAGE

AREA	JANUARY	FEBRUARY	MARCH	APRIL	MAY
Central Valley North	45%	70%	90%	100%	75%
Central Valley South	45%	65%	85%	100%	80%
North Coast	40%	60%	85%	100%	80%

## February 1 Statewide Conditions



## SNOWLINES

**2008** brings us to commemorate the 76th annual Western Snow Conference. It's not too early to begin making plans to attend this year's conference, to be held in Hood River, OR, during the week of April 15-17, 2008. The theme of this year's conference is "Working Across Boundaries" (be it watershed, county, state or country; a line in the sand or a major river). For further information please check [www.westernsnowconference.org](http://www.westernsnowconference.org) or Frank Gehrke at 916-574-2635.

**Please** show your appreciation to your local snow surveyor without whom this report would not be possible. End of month storms created unusually difficult and frequently hazardous travel conditions inspite of which the snow surveys are remarkably complete.

**Backpacking** with Merced Irrigation District is depicted on this month's cover. Dan Pope and Ken Wootten are transporting material and supplies an unexpectedly long distance during the Merced Lake snow sensor installation last fall. Photo by Frank Gehrke.

***SNOWPACK***-Snow data is a major index of spring and summer runoff from Sierra Nevada watersheds. April 1 data historically reflects the magnitude of the snowpack at or near the maximum seasonal accumulation. Averages are based on April 1 data for the period 1951-2000 (50 years, except for data sites established after 1951).

***PRECIPITATION*** -Averages are usually based on data for the period 1951-2000 (50 years, except for data sites established after 1951).

***RUNOFF AND FORECASTS*** -Runoff data and runoff forecasts are shown as unimpaired values. Unimpaired runoff represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds. Forecast of runoff assumes median conditions subsequent to the date of forecast.

Runoff probability ranges are statistically derived from historical data. The 80 percent probability range is comprised of the 90 percent exceedence level value and the 10 percent exceedence level value. This means that actual runoff should fall within the stated limits eight times out of ten.

Runoff averages for most streams are based on the period 1956-2005.

Reservoir storage averages are based on the period from 1956 (or beginning of operation) to 2005.

For more details contact California Cooperative Snow Surveys, P.O. Box 219000, Sacramento, CA 95821-9000, (916) 574-2635 or [gridley@water.ca.gov](mailto:gridley@water.ca.gov).

## ***INDICES OF WATER AVAILABILITY***

The Sacramento River water year unimpaired runoff is the sum of: Sacramento River above Bend Bridge, Feather River Inflow to Lake Oroville, Yuba River near Smartville and American River Inflow to Folsom Lake.

The Sacramento Valley Water Year Hydrologic Classification (40-30-30 Index). The values 40-30-30 represent the percentage weight given to the three variables in the formula for the index. The first variable is the forecasted unimpaired runoff from April through July (40 percent). The second variable is the forecasted unimpaired runoff from October through March (30 Percent). The third variable is the previous year's index with a cap to account for required flood control releases during wet years. The basins used in this computation are those used in the Sacramento River water year unimpaired runoff.

The San Joaquin Valley Water Year Hydrologic Classification (60-20-20 Index). In a similar manner the values 60-20-20 represent the percentage weights on April through July runoff, October through March runoff and previous year's Index. The San Joaquin River unimpaired runoff is the sum of: Stanislaus River Ibelow Goodwin, Tuolumne River below La Grange, Merced River below Merced Falls and San Joaquin River Inflow to Millerton Lake.

Runoff of the eight major rivers of the Sacramento and San Joaquin Regions is the sum of the runoff in the eight major rivers used in the two above indices.

State of California – The Resources Agency  
DEPARTMENT OF WATER RESOURCES  
P.O. Box 942836  
Sacramento, CA 94236-0001

# First Class

